

Remarks

Favorable reconsideration of this application is requested in view of the following remarks. For the reasons set forth below, Applicant respectfully submits that the claimed invention is allowable over the cited references.

The non-final Office Action dated October 24, 2003, indicated that claims 1-19 are rejected under 35 U.S.C. § 103(a) over *Kino et al.* (U.S. Patent No. 4,683,750) in view of *Eriguchi* (U.S. Patent No. 6,395,563).

Applicant respectfully traverses the Section 103(a) rejection because the Office Action fails to present the requisite evidence of motivation to modify the cited prior art to achieve the claimed invention. The Office Action must present evidence that the cited prior art suggests the desirability of the claimed invention. MPEP § 2143.01. The primary '750 reference is directed to a thermal acoustic probe for measuring periodic surface heating in a sample through the use of an acoustic wave. *See* '750 Abstract. Without presenting any evidence of motivation or explanation of how the combination would be implemented, the Office Action proposes modifying the '750 thermal probe to include the optical film-thickness semiconductor analysis arrangement and fiber cable of the '563 reference. No evidence has been presented as to how the '750 acoustic measurement system would be modified to use the optical film-thickness semiconductor analysis arrangement and fiber cable of the '563 reference to achieve the claimed invention. The '750 reference is directed to measuring periodic surface heating using an acoustic wave and heating laser in a semiconductor die. The '563 optical film-thickness analysis arrangement is directed to measuring film-thickness via optical evaluation during a manufacturing process. The '750 and '563 references are directed to entirely different measurement techniques for measuring entirely different properties in entirely different types of samples. Without presenting any evidence of motivation in the '750 reference to modify the '750 reference to achieve the claimed invention, the Office Action fails to present a *prima facie* Section 103(a) rejection. Applicant accordingly requests that the rejection be withdrawn.

Applicant submits that the Office Action fails to comply with 35 U.S.C. § 132 as no explanation is provided as to how the '563 teachings would be combined with the teachings of the '750 reference and, thereby, precludes Applicant from considering and responding to the merits of the proposed combination.

Notwithstanding this lack of compliance with 35 U.S.C. § 132, Applicant surmises that the proposed modification is to use the optical film-thickness analysis arrangement of the '563 reference to enclose and test the silicon die of the '750 measurement technique. Such a modification would frustrate both the purpose and operation of the '750 device rendering the proposed modification improper and unmotivated. The MPEP states that when a proposed modification would render the teachings being modified unsatisfactory for their intended purpose, there is no suggestion or motivation to make the proposed modification under 35 U.S.C. § 103(a). *See* MPEP § 2143.01. As discussed above, the '750 reference is directed to measuring periodic surface heating of a silicon die using an acoustic wave perturbed by a heating laser. The '563 optical film-thickness analysis arrangement includes irradiating a wafer during manufacture with two different types of light to measure the wafer's reflectivity of each type of light. The two '563 light sources would illuminate the '750 silicon die thereby interfering with both the acoustic wave and the heating laser of the '750 reference. Moreover, the '563 optical film-thickness analysis arrangement does not provide structure for the '750 reference's transducers which generate the acoustic wave. Thus, the '750 measurement system would be destroyed preventing the measurement of the periodic surface heating. To suggest that the '750 measurement technique be modified to include the '563 optical film-thickness analysis arrangement is untenable as the modification would frustrate the operation and purpose of the '750 technique. Thus, the proposed combination is improper and Applicant requests that the rejection be withdrawn.

With respect to the rejections of claims 5, 7-9 and 19 Applicant respectfully traverses the Examiner's contention that various claim limitations "would have been known." No evidence for this conclusory statement has been presented in any of the above rejections. Moreover, the Examiner fails to show how such limitations would be incorporated into the proposed combination. Without further evidence, Applicant submits that the Section 103(a) rejection of claims 5, 7-9 and 19 is improper and requests that the rejection be withdrawn.

In view of the remarks above, Applicant believes that the rejection has been overcome and the application is in condition for allowance. Should there be any

remaining issues that could be readily addressed over the telephone, the Examiner is encouraged to contact the undersigned at (651) 686-6633.

Respectfully submitted,

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